

**Notice of Allowability**

Application No.

09/885,580

Examiner

Philip J Sobutka

Applicant(s)

ABUTALEB ET AL.

Art Unit

2684

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the response filed 3/18/2005.
2. ☒ The allowed claim(s) is/are 2-17 and 29-44.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  
(a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1) ☐ hereto or 2) ☒ to Paper No./Mail Date 6.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input checked="" type="checkbox"/> Other <u>Marked-up copy of Claim 10</u> .      |

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

IN CLAIM 10:

Delete the "+" sign at the beginning of line 2.

3. See attached marked up and initialed copy.

### **REASONS FOR ALLOWANCE**

4. The following is an examiner's statement of reasons for allowance:

Claims 2-17 are allowed for the reasons presented in the previous office action, mailed November 18, 2004.

Consider claims 29,38. The nearest prior art as shown in Evans, Rossi and Tilford fails to teach the apparatus and method for operating a satellite station

Art Unit: 2684

comprising: processing data through a first modem at a first data rate; processing data through a second modem at a second data rate and subjecting the data to first and second error correction schemes; and executing a microprocessor configured to operate management and control programming to direct data processing of the first and second modems; wherein the first and second error correction schemes are manipulated so that the second data rate is faster than the first data rate.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J Sobutka whose telephone number is 571-272-7887. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882.

7. The current fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2684

On July 15, 2005, the Central FAX Number will change to **571-273-8300**. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number. To give customers time to adjust to the new Central FAX Number, faxes sent to the old number (703-872-9306) will be routed to the new number until September 15, 2005.

After September 15, 2005, the old number will no longer be in service and **571-273-8300** will be the only facsimile number recognized for "centralized delivery".

**CENTRALIZED DELIVERY POLICY:** For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/885,580

Page 4 5

Art Unit: 2684

Philip Sobutka

(571) 272-7887

  
**NAY MAUNG**  
**SUPERVISORY PATENT EXAMINER**

claim 10 marked-up copy

1 of 3

10. (original) An earth station for Inmarsat-B service, comprising:

na  
a standard Inmarsat-B mobile earth station control unit (MCU) having a first satellite modem, a microcontroller executing an mobile earth station (MES) management program, a first EIA-232 port in communication with the MES management program, a diplexed L-band transmit/receive interface, and a software application programming interface (API) in the management program accessible through the EIA-232 interface, which API enables external control of a high power amplifier in an RF terminal by use of the API;

a standard Inmarsat-B RF terminal with L-band transmit/receive interface and a high power amplifier (HPA) that the MCU can control using management and control (M&C) messages multiplexed over an RF path connecting the MCU with the RF terminal;

a second satellite modem capable of providing higher data rate operation than the first satellite modem and equipped with L-band transmit and receive interfaces, a keypad and display, a microcontroller running a modem management program that controls the operation of the second satellite modem, keypad, and display, a baseband I/O port, a remote control EIA-232 port in communication with the modem management program; and

a switching assembly associated with the second satellite modem and that contains a plurality of EIA-232 ports provided by a UART in communication with a switching management program running on a computer embedded in the switching assembly, an entry switch and an exit switch controlled by the embedded computer, a first M&C path between a first port on the UART and the EIA-232 port on the MCU, a second M&C path between a second port on the UART and the remote control EIA-232 port on the second satellite modem, two L-band diplexers, an entry connector connected to the diplexed L-band transmit/receive interface of the first satellite modem, an exit connector connected to the L-band transmit/receive interface of the RF terminal, NVRAM associated with the embedded computer as a data storage device, which switching management program interoperates with the MES management program through data exchange over the first M&C path and with the modem management program through data exchange on the second M&C path, provides a local user interface through the keypad and display on the second satellite modem, and based on data received and stored in NVRAM the switching management program controls the entry and exit switches to switch between:

a first path ("Bypass Path") on the switching assembly from the entry connector through entry and exit switches to the exit connector that passes signals from DC power to L-band with negligible attenuation, and

a second RF path ("ICE path") on the switching assembly from the entry connector through the entry switch that connects with a first diplexer that terminates an entering transmitter L-band signal in a dummy load, and substitutes for the entering transmitter L-band signal the L-band transmitter output of the second satellite modem by connecting the L-band transmitter output of the second satellite modem with the transmit port of the second diplexer, which diplexes the second satellite modem transmit output into an RF path that passes through the exit switch to the exit connector, wherein the receive L-band path from the exit connector passes through the exit switch to the diplexed port of the second diplexer, out of the receive port of the second diplexer to the receive port of the first diplexer, out of the diplexed port of the first diplexer through the

7 entry switch to the entry connector, and wherein the receive path is amplified and filtered so that it is virtually lossless compared with the receive signal strength at the entry connector when the first path is selected by the embedded computer, and wherein a directional coupler inserted in the RF path between the entry connector and the entry switch to provide a branch receive path that is filtered, amplified, and connected to the receive interface of the second satellite modem, and wherein DC power and an M&C frequency band pass through a first low pass filter connected to the entry connectors and a second low pass filter connected to the exit connector, thereby providing a DC power path and M&C path through the switching assembly when the second RF path is selected by the switching management program;

wherein the switching management program through communications with the modem management program and based on a configuration stored in NVRAM configures the second satellite modem to transmit and receive at data rates higher and lower than the data rate supported by the first satellite modem, controls the HPA power level through communications with the MES management program to set the HPA at the power level required by the configured data rate, and sets the entry and exit switches to insert the ICE Path so that the second satellite modem transmits and receives over the RF terminal.

~~Entered by~~